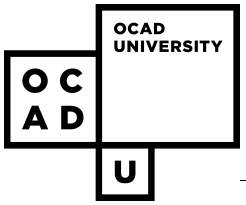

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Wicked Problems, Wicked Humor: *Fun Machines* as Method

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Abstract

Design methods need to reconsider ways of *not othering* mess (or what appears as nonsense) within wicked problem situations, particularly, crises sites. As such, the paper suggests that fun making (humor) can be utilized as a method for designers to affirmatively work with the paradoxes and contradictions that appear as nonsensical. The paper sets out to map the theoretical framework for a possible *Fun machine*, using the broader methodological discourses on "after method" and "second generation design machine" as a departure point. Simultaneously, the paper discusses some of the concrete implications of the Fun machine via a pilot study (Dessau) and its potential as a coping method. The project is not intended as an end in itself, but instead, a means through which the fun making capacity of the second-generation design machine can be explored further.

Keywords: Crisis, Mess, After method, Coping, Design agency

1. Introduction: Shall We Make Fun of This Mess?

Dessau--a shrinking city--shares many of the common problems faced by former industrial cities of East Germany, since the reunification. Declining job opportunities, mass exodus of the young population and the consequent rise of the aged population, abandonment of built infrastructure are only a number of the complex issues that are an intrinsic part of the everyday reality of these cities (Oswalt et al., 2005). Dessau also provides the backdrop for the famous architectural landmark the Bauhaus designed by Walter Gropius. The entangled history of the Bauhaus and other industrial institutions such as the Junkers factory are reminiscent of the cities industrial past--and better times--in general. Although there have been numerous efforts since the 1990s to integrate cities like Dessau to the economic and growth processes of Germany the results remain primarily conflicted. Many serious proposals both at a national level and state level such as; the conversion of the Stadtpark in the heart of Dessau to an “interkultureller generation park” (Beeck & Bruckner, 2010); the completion of the new Bauhaus museum Dessau (Thöner, et al., 2016); the rebranding of the city using Bauhaus as a cultural landmark; the demolishing of abandoned infrastructure to create extended landscapes through the “city-islands project”(Beeck & Bruckner, 2010), are reflective of some of these admirable efforts. However, the not so serious looking systems in figure 01 also depict Dessau or what it could be.

These alternative constructs of the shrinking city of Dessau are called *Fun machines*. They are different from the existing proposals for the "wicked" questions of the shrinking city. At first glance instead of being serious, they tend to be a bit nonsensical. What can *Poker face Bauhaus, Scram-ball, Old-topia, Social flight simulator, Chic-staining machine, Mind-the-gap* app, contribute to the ongoing design discussion on bringing Dessau out of its messy predicament?

For one thing, instead of negating mess these systems attempt to incorporate it in significant and productive ways, within the design process. They question not only the city's shrinking condition but also the state level and institutional level proposals. For example; *Mind the gap* is questioning the gaps created by the State proposal to create "green islands." The *Bauhaus poker face* and the *Lizard who lost its tail* question the over-emphasis on the Bauhaus as a rebranding strategy. The *Dancing hedgehogs* question the very concept of the "interkultureller generation park." These alternative systems are productions of a unique category of stakeholders of the city-- the architecture students of the Anhalt University. As peripheral stakeholders--aptly depicted in figure 02 as flowing through the city--their chances of partaking in the state level or citizen level approaches to the town are somewhat restricted. But they continue to be one of the stakeholders most affected by the broader conditions of the city. Their position within this site is one that has similarities with designers/architects who are operating at the center of crises sites (slums, refugee camps, tsunami-driven areas, etc.), but feel as though they have very little ability to interfere with the situation.

The Fun machine is a play on design method itself. How would the methods machine operate if optimization or finding the "right" answer were not what it was meant to be doing? How can the methods machine be updated in ways that enable designers to live and work with the confusion in crises sites? What happens to design methods when liberated from a “moralist idea” of methods that suggests that only right methods (right forms of questioning, sampling, mapping) will allow one to know or map a site properly? What happens when one start seeing the methods machine as something that does not describe the reality that is investigated but, instead, constructs it? What if, I was to state that a way to make sense of complexity is by being not so serious? Instead of diligently

trying to find a solution, designers should ask themselves and others--shall we make fun of this mess?

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Figure 1. Fun machines [sketches by *Studio Fun Machines,* 2018]

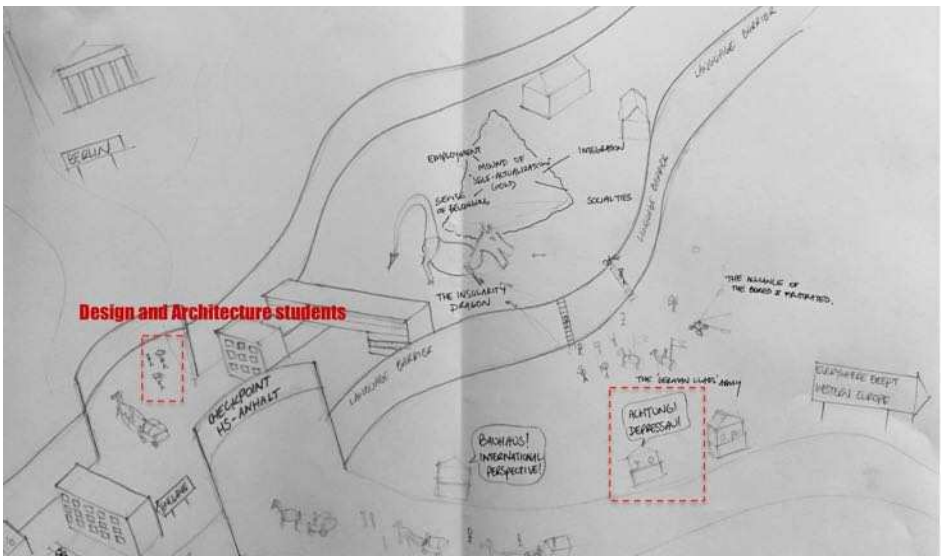

Figure 2. Dessau, Flows [sketch by Sam Koh, *Studio Fun Machines,* 2018]

2. Methods, Machines, Mess

The invocation of a design method as a machine in architecture can be traced back to Vitruvius with modernist re-appropriations in the work of Le Corbusier, Sigfried Giedion (Le Corbusier, 2014; Giedion, 2013). In all these appropriations the methods machine is one that is tuned precisely to perform a definable task. For systems theorists--proponents of the post-war design methods movement (DMS) who were instrumental in developing a specific discourse on methods within architecture--the machine relates to an actual devices (which is describes abstractly) and to systematic processes such as that of the design method. Therefore the design machine (design methods) propagated by the first generation of systems theory around the 1950s was something that embodies the idea that there is an optimizable right answer (Upitis, 2008). Designers utilized methods to systematize the design process and eliminate all the mess or contradictions that did not fit within the optimization framework.

However, the proponents of the 1970s movement on design methods (also known as second generation methods) pioneered by systems-design theorists such as Horst Rittel, were critical of these processes of optimization. Instead, Rittel attempted to explore how a design method could make sense of the multiple controversial dimensions of a design problem that he came to identify through the term "wicked problems"(Rittel & Webber, 1973). Rittel identified that the complexity of design problems arise from the fact that they relate not only to material systems but also social systems. The dynamic, networked, open systemic properties of these problems make it difficult to frame these problems with clarity (figure 03). According to Rittel traditional design methods attempted to tame wicked problems, thereby reducing the problems and treated them as closed systems.

As such, second-generation explorations in methodology question what method--and its politics--might be when not caught in an obsession with clarity, with specificity, and with professionalism. The two most significant themes that drive second-generation methodology are as follows: 1. The Design process is a process of argumentation and therefore framing design problems means framing conversations, 2. There is a Symmetry of ignorance and consequently, no single category of stakeholders of the problem know all there is to be known about the system. For a technologist and systems thinker such as Rittel, It was an opportunity to distance “instrumental knowledge” in design from the knowledge frameworks attempting to find truth, in the sciences (Sevaldson, 2010). This line of exploration suggests that other than working with nice clear research findings it is also important to take in to account the material that is othered such as confusing descriptions, imprecisions, and paradoxes. In "How to Know What is Known" Rittel suggests that most existing tools and information systems are limited because they merely confirm knowledge (Rittel, 2013). He argues that what is needed is in fact “mental crutches” that enhance “natural intelligence” that cast doubt, point out ignorance and thereby open up new ways of producing knowledge. One could state that Rittel’s work was an invitation for designers to find ways to move away from the crippling effects of the methods machine and instead explore it as a more playful device that opens up conversations. Considered in this manner Rittel’s take on the second-order methods machine makes a significant contribution to the broader field of “After methods” that argues that methods research needs to update itself in finding ways of knowing and living with confusion (Law, 2004).

Figure 3. Wicked problems as wicked games [sketch by Aniruddha Phadke, 2018]

3. The Playful Second-Order Design Machine

Some of the most direct appropriations of the second-order machine's opening towards mess are found in the work of researchers that make explicit that design emerges through a process of controversies, arguments, and negotiations. Studies in this direction arising from within systemic design practices occupy a broad spectrum. It varies from the more direct applications of Rittel's notion of conversations in the idea of creating or evaluating participatory frameworks in both real and digital contexts (Conklin, 2006; Jones, 2018), to developing methods such as "Giga mapping" to co-map complexity visually (Sevaldson, 2011), all the way to prototypes developed through extended interactions with various human and non human stakeholders (Davidova & Zimova, 2017). Regardless of their differences, they remain as significant and productive ways that affirm the mess emerging through the negotiations between various agents within processes of innovation.

Another category of research particularly useful in rethinking the playfulness of the second generation machine in the context of crisis emerges in the work of Ranulph Glanville and Ben Sweeting and the particular ways in which they address the "undecidable" or "unknowable" within the design process (Glanville, 1988; Sweeting, 2014). Their constructivist take on wicked problems (via Second-order Cybernetician Heinz von Foerster's "non-trivial machine") extends the notion of "argument" and "symmetry of ignorance" from the external conversational framework to the way the "designing self" structurally emerges in relation to the context in which it acts. Ben Sweeting-- via

his exploration on ethics --emphasizes that design is not about the implementation of right actions, but rather an exploration of how an action emerges as a right action in response to the situation. Their work collectively suggests that the construct of the designing agent (architect, designer) is something fuzzier than a clearly defined sensible stakeholder, and design as something that links to the everyday life, which can lead to, but not necessarily oriented towards innovation.

The work carried out with designers in the pilot crisis sites of Dessau (Shrinking cities) and Colombo (Garbage sites in Slums) suggest two essential areas that need further exploration. First is the need to question the distinction between methods for innovation and methods for survival. The inability to cope with the situation makes specific stakeholders exit the conversational process even before moving to a phase of hoping (innovation). Entangled within this idea are also the notions that in a coping stage the paradoxes and contradictions apparent in the site appear to the designer as "nonsensical" than “sensible.” Second is the need to question the very constructedness of the professional agency of the designer. More Often than not, the identification with the “professional persona” and what is expected of this persona was causing more frustration. What if the designers can construct/ choose the persona that enters the problem framing process?

4. Fun Machines

The fun machine--an extension of the playful second order machine discussed in the above sections--is an attempt to help designers cope with the problem at hand by dealing with the paradoxes/contradictions that appear as nonsensical. The fun machine uses fun-making (humor)--a specific form of conversational interaction--as a strategy to create a coping framework. Theorists such as Sigmund Freud, Arthur Koestler, and William Fry states that fun making becomes a technique of freedom through its attitude of not asking anything of the situation (Freud, 2013; Koestler, 2014; Fry, 2010). It aims at no satisfaction of serious needs but instead approaches the situation with only the interest of contemplating it further. Notably, Koestler and Fry whose work was devoted towards exploring how humor operates have clearly shown that contradictions, paradoxes that are usually the fundamental characteristics of the structure of a wicked problem—are also shared by the structure of humor (Koestler, 2014; Fry, 2010). One may not be able to work with the paradoxes/contradictions as it is, but when turned in to a fun machine, it can be handled, grasped, operated on, and handed over to others.

4.1. Play frame

William Fry argues that coping humor by its sheer energy can develop towards a basis for hoping (Fry, 2010). The ability of a Fun machine to translate from a coping method to a hoping method occurs by introducing a “play frame.” The moment one is asked to construct a fun machine it is an invitation to create a play frame with the materials of the situation. At the same time the play frame contains the real and the unreal, the sensible and the nonsensical. The play frame, paradoxically suggests that what is contained within it is to be played with and that it is nothing serious. The play frame in the context of pilot projects also takes on a particular form as it embellishes the basic pleasurable states of playfulness with various content tricks, the richness of joking, satire, caricature, etc. In effect, the fun machine frames the spatial (urban level, building level, object level) aspects of the wicked problem that requires a solution, in a way that reflects the ideological one: solving one should ideally aid in solving the other.

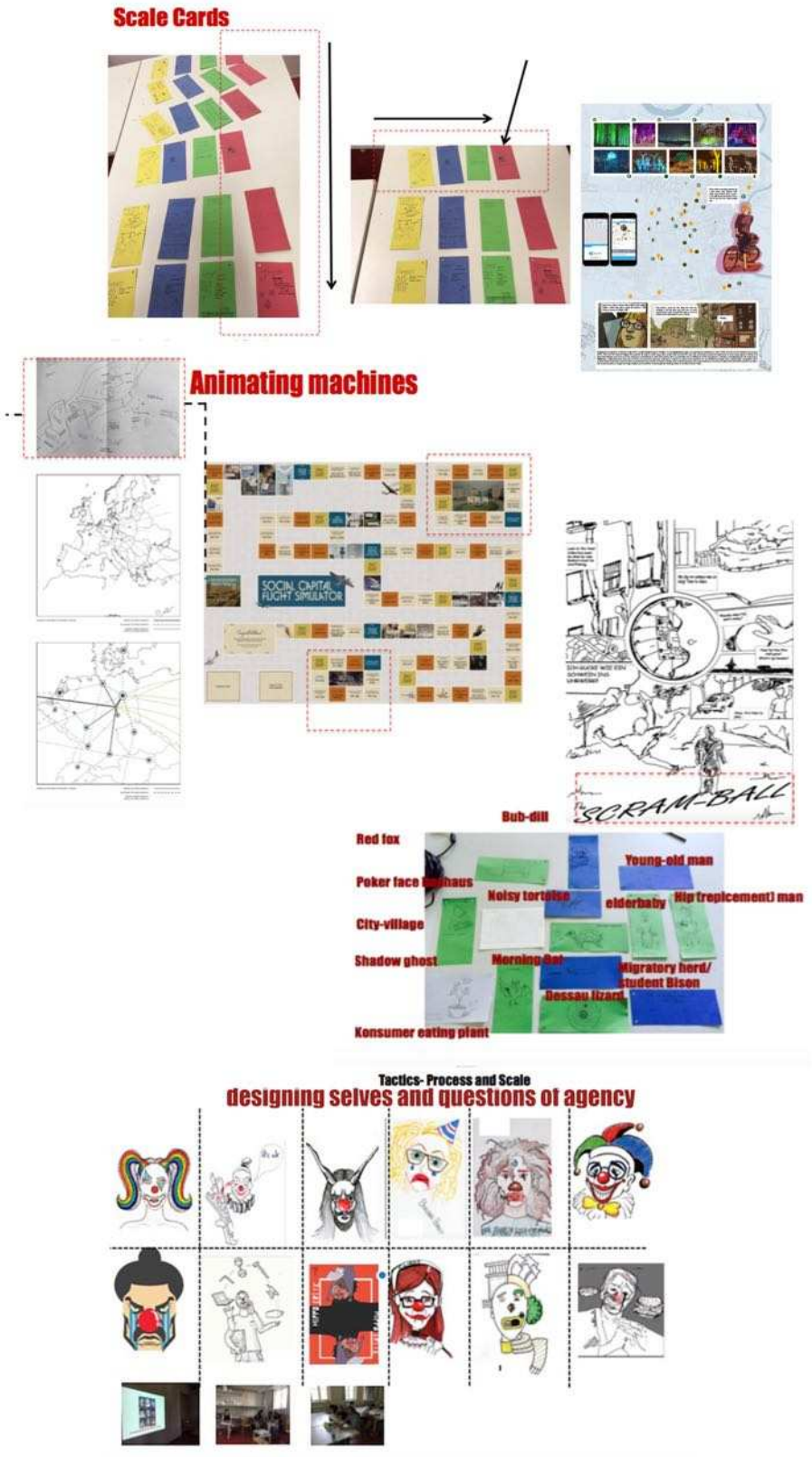

Figure 4. Process [sketches by *Studio Fun Machines,* 2018]

4.2. Wording, scrambling

A play frame that navigates between the real and unreal invites alternative imaginaries and enables the designer to work through the limitations of existing languages of framing the problem. Firstly, it is an invitation to reword the problem by not negating controversial aspects. Secondly, it can be an invitation to present the issue in a language that invites the participation of all agents and stakeholders. Puns, caricature, or composite words were used to break away from the generally accepted meanings of words and their basic structural configurations. Techniques such as animating the problem as a living entity or creating funny caricatured creatures that contain the controversies were promoted. The controversies in the problem were given a verbal form by the use of compositional words, the use of double meanings, etc. For example, questions of ageism, noise regulations, movement and flows, abandonment were reworded to reveal the contradictions (figure 04). The limitations of communicating with other stakeholders of the wicked problem were addressed by converting questions of space to cautionary games or cautionary tales with a twist of humor. Within these games or tales, the contradictions of the wicked problem were exaggerated and projected using an allegory to a different setting.

4.3. Scaling, mattering

A coping play frame suggests a different way to approach scale within a project. In general, a scale of a problem can range from more technocratic levels of categorizing the problem (according to the ease of operations) to levels that correspond with various forms of meaning generation for each of the project's stakeholders. The play frame when related to coping is not about figuring out the most operative level of the problem or what is the most meaningful in terms of public image etc. Instead, the scale at the coping level relates to mattering. What matters is sometimes finding an answer that works spontaneously in a given situation. Card games were played to portray each problem at 4 different scales to identify the scale that matters when the designer has to cope with the situation. For example, the mattering scale sparked the creation of *Mind-the-gap*, which was a critical reaction to the government's proposal to demolish abandoned buildings and create landscaped islands within Dessau (figure 04). While the government's idea was good from a meta-urban planning perspective, the paradox of people experiencing these vast stretches of open space was problematic for one of the primary users the young bikers. To maintain the paradoxical requirements expected of these gaps the fun machine (a blueprint for an app) connects temporary playful light installations that instantly create public environments in these dark gaps according to biker movements.

4.4. Framing flows, not taming flows

The play frame is used to depict wicked issues as open systemic issues. The frame itself can be a way of representing flows than a static situation. Most designers can *feel* the problem as a flow but are unable to transfer this flow into a design process diagram, as the flow appears nonsensical due to the multiple levels of abstraction and complexity. The designers are encouraged to play with the flows of the problem animating all its feedback loops and important nodes through caricature and satire. For example, The social flight simulator was a way of making fun of what it's designer terms as “the flight of creative capital” and the paradox of how Dessau can be home to such a diverse range of talented people, and at the same time, have cultivated a reputation as a cultural wasteland (figure 04). The factors that combine to create such a state of affairs vary in scale and complexity. Political and

economic factors that affect the site operate at a global level, affecting things such as the housing market, employment prospects, etc. Through the animation of these flows in the form of a board game the inter-relatedness of these decisions is made apparent, and players are triggered to interrogate their roles in the perpetuation of the state of affairs that give Dessau its reputation. Players assume the role of an international student in Dessau and must navigate their way through the various decisions that face them in their journey till the end of their studies.

4.5. Laughing, clowning

All mastery, while enabling, can also be disabling. A crisis moment invites a question of what one's professional education allows one to do and *not do*. Unfortunately, it is often the case that those who are at the center of the problem, sometimes the most responsible, found it the hardest to escape the optimizable, functionalist quality of design methods. It seems more comfortable to negate the contradictions that one sees and ignore the multiple versions of one's self that responds in "other" ways to the problem. The fun machine makes an invitation to deal with these numerous selves explicitly by conjuring what is called an architectural clown.

The architectural clown—unlike professional architects—has no fear in dealing with confused thoughts and acts of failure. The clowns were invited to use their trickster persona to voice aspects of conflicting thoughts that they try to keep away (figure 04). The designers were encouraged to question the "morally righteous" lenses through which they frame crisis contexts. Reconsidering certain forms of extended altruism--such as narratives framed in the form of "helping the affected"--were a priority. The clown construct was used to reflect on the designer's feelings and questioning if the designers were voicing themselves the way they want regarding the issue at hand? According to Koestler, the jester uses a division of labor—the clash of incompatible codes within one's self—to frame the problem (Koestler, 2014). Making these controversies explicit means, one could actively work on resolving some of these issues and work towards self-development.

5. Unfinished Play

Fun machines use the notion of fun making-ironically-as serious ways of reframing wicked problems. To do so, fun machines utilize the curious parallels between the structure of humor (that affirmatively embraces the controversies and paradoxes) and the structure of wicked problems (characterized by of controversies and paradoxes) effectively juxtaposing them within a play frame. The play frame acts as both process and object, enabling the designers to cope with the situation at hand, and move on to a hoping phase. Though yet underdeveloped, the most significant contribution of the pilot project towards a broader position on after methods that deserve further exploration are in general twofold: (1) It makes a distinction between the coping and hoping in crises and calls for a much-needed emphasis on this crucial distinction, within the methods phase. While acknowledging that coping can lead to hoping, the project suggests that tactics are needed to enable the designers to not exit the process due to frustration in the coping phase. (2) The project questions the relation between sense and methods, more specifically the prevailing notion that one needs to negate what appears as "nonsense" to make sense of the problem. More concretely, it explores how the effort to make sense --particularly as professionals--can delimit, if not completely close off the designer's ability to identify himself as a stakeholder that can engage with the problem. To create a fun machine is also a way of playfully breaking away from one's image as a designer and embracing the

chaos of the multiple versions of your designing self. Perhaps, a bit of clown-sense can go a long way in working with wicked problems?

Figure 5. On becoming an architectural clown [sketch by Aniruddha Phadke, 2018]

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